

**Abstract**

The present invention provides a method of magnetic resonance imaging of a sample, said method comprising:

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i) administering a hyperpolarised MR imaging agent comprising non-zero nuclear spin nuclei into said sample;

10 ii) exposing said sample to a radiation at a frequency selected to excite nuclear spin transitions in said non-zero nuclear spin nuclei;

15 iii) detecting MR signals from said sample utilising spectral-spatial excitation, in combination with line scanning, point scanning and/or steady state imaging techniques; and

iv) optionally generating an image, physiological data or metabolic data from said detected signals.

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